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AIRFLOW ASSISTED RAMP LOADING AND UNLOADING OF SLIDERS IN HARD DISK DRIVES

ABSTRACT OF THE DISCLOSURE

Windage proximate to a spinning disk within a disk drive is directed through a plurality of apertures in a ramp situated near the outside diameter of the disk. A tab extending from a load beam that supports a slider rests on the ramp when the drive is not in use. When the drive is started the disk begins to spin and an actuator moves the load beam to bring the slider over the surface of the disk. As the load beam moves, the tab is guided along the ramp and cushioned by the air flow emerging from apertures in the ramp beneath it. When the drive is stopped the actuator brings the load beam back so that the tab engages the ramp. A cushion of air is again provided as the tab is moved along the ramp as the tab is returned to a parked position.

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